

Water-Data Report 2008

**03161000 SOUTH FORK NEW RIVER NEAR JEFFERSON, NC**

Kanawha Basin  
Upper New Subbasin

LOCATION.--Lat 36°23'36", long 81°24'25" referenced to North American Datum of 1983, Ashe County, NC, Hydrologic Unit 05050001, on right bank 600 ft upstream from bridge on North Carolina Highways 16/88, 0.2 mi downstream of Bear Creek, and 4 mi southeast of Jefferson.

DRAINAGE AREA.--205 mi<sup>2</sup>.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--October 1924 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 1275: 1925-26(M), 1928-30(M), 1931-32, 1933-35(M), 1941-42(m), 1944(m). WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,657.04 ft above NGVD of 1929. Prior to October 14, 1934, nonrecording gage on bridge 400 ft downstream at same datum. October 14, 1934, to March 25, 1935, nonrecording gage at present site and datum. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Maximum discharge for period of record, from rating curve extended above 14,000 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow. Minimum discharge for period of record result of freezeup.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 15, 1916, reached a stage of 18.0 ft, from floodmarks witnessed by local resident; discharge, 35,200 ft<sup>3</sup>/s.

## 03161000 SOUTH FORK NEW RIVER NEAR JEFFERSON, NC—Continued

**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**  
**DAILY MEAN VALUES**  
[e, estimated]

| Day          | Oct   | Nov   | Dec   | Jan   | Feb   | Mar    | Apr   | May   | Jun   | Jul   | Aug   | Sep   |
|--------------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|-------|-------|
| 1            | 103   | 192   | 130   | 373   | 266   | 249    | 291   | 276   | 213   | 163   | 129   | 223   |
| 2            | 103   | 182   | 130   | 305   | 514   | 252    | 285   | 265   | 192   | 143   | 144   | 210   |
| 3            | 104   | 176   | 135   | e275  | 340   | 243    | 272   | 254   | 182   | 131   | 137   | 187   |
| 4            | 108   | 167   | 142   | e256  | 313   | 499    | 296   | 255   | 179   | 127   | 136   | 169   |
| 5            | 120   | 160   | 138   | e242  | 422   | 2,610  | 303   | 245   | 174   | 128   | 120   | 157   |
| 6            | 243   | 160   | 135   | e233  | 410   | 968    | 557   | 239   | 166   | 243   | 112   | 150   |
| 7            | 169   | 158   | 143   | e224  | 450   | 718    | 544   | 236   | 159   | 344   | 111   | 143   |
| 8            | 131   | 154   | 134   | 218   | 381   | 873    | 402   | 229   | 155   | 220   | 110   | 142   |
| 9            | 120   | 149   | 135   | 210   | 329   | 684    | 361   | 245   | 150   | 184   | 112   | 212   |
| 10           | 113   | 148   | 135   | 206   | 302   | 549    | 336   | 251   | 168   | 196   | 104   | 325   |
| 11           | 107   | 148   | 134   | 262   | 265   | 482    | 320   | 230   | 338   | 258   | 96    | 248   |
| 12           | 103   | 146   | 131   | 329   | 253   | 435    | 314   | 264   | 270   | 227   | 91    | 245   |
| 13           | 103   | 146   | 129   | 255   | 260   | 396    | 308   | 275   | 198   | 172   | 90    | 211   |
| 14           | 103   | 146   | 130   | 236   | 260   | 368    | 293   | 233   | 184   | 262   | 93    | 189   |
| 15           | 103   | 150   | 132   | 224   | 238   | 365    | 289   | 222   | 327   | 253   | 96    | 173   |
| 16           | 103   | 153   | 194   | 205   | 226   | 476    | 275   | 237   | 237   | 170   | 94    | 177   |
| 17           | 103   | 149   | 236   | 228   | 226   | 410    | 272   | 246   | 180   | 150   | 86    | 195   |
| 18           | 104   | 141   | 181   | 236   | 408   | 353    | 258   | 225   | 162   | 139   | 88    | 178   |
| 19           | 133   | 141   | 161   | 249   | 428   | 362    | 258   | 229   | 151   | 133   | 94    | 159   |
| 20           | 238   | 141   | 153   | e228  | 311   | 603    | 392   | 237   | 147   | 130   | 86    | 152   |
| 21           | 214   | 140   | 163   | e215  | 282   | 499    | 341   | 216   | 146   | 124   | 80    | 148   |
| 22           | 141   | 138   | 192   | e205  | 266   | 425    | 287   | 209   | 252   | 119   | 76    | 145   |
| 23           | 150   | 136   | 334   | e198  | 258   | 390    | 272   | 199   | 196   | 163   | 74    | 141   |
| 24           | 268   | 132   | 633   | e193  | 247   | 362    | 263   | 200   | 187   | 149   | 73    | 137   |
| 25           | 1,300 | 132   | 355   | e190  | 239   | 340    | 255   | 197   | 152   | 131   | 74    | 134   |
| 26           | 940   | 139   | 281   | e188  | 247   | 323    | 249   | 189   | 142   | 119   | 131   | 170   |
| 27           | 581   | 155   | 267   | e186  | 298   | 309    | 246   | 185   | 154   | 121   | 2,450 | 779   |
| 28           | 358   | 160   | 256   | e184  | 275   | 301    | 350   | 201   | 168   | 121   | 1,120 | 611   |
| 29           | 270   | 140   | 403   | 183   | 246   | 298    | 416   | 274   | 148   | 132   | 542   | 357   |
| 30           | 231   | 132   | 383   | 192   | ---   | 318    | 306   | 240   | 162   | 155   | 343   | 272   |
| 31           | 208   | ---   | 461   | 193   | ---   | 300    | ---   | 203   | ---   | 127   | 258   | ---   |
| <b>Total</b> | 7,175 | 4,511 | 6,666 | 7,121 | 8,960 | 15,760 | 9,611 | 7,206 | 5,639 | 5,234 | 7,350 | 6,739 |
| <b>Mean</b>  | 231   | 150   | 215   | 230   | 309   | 508    | 320   | 232   | 188   | 169   | 237   | 225   |
| <b>Max</b>   | 1,300 | 192   | 633   | 373   | 514   | 2,610  | 557   | 276   | 338   | 344   | 2,450 | 779   |
| <b>Min</b>   | 103   | 132   | 129   | 183   | 226   | 243    | 246   | 185   | 142   | 119   | 73    | 134   |
| <b>Cfsm</b>  | 1.13  | 0.73  | 1.05  | 1.12  | 1.51  | 2.48   | 1.56  | 1.13  | 0.92  | 0.82  | 1.16  | 1.10  |
| <b>In.</b>   | 1.30  | 0.82  | 1.21  | 1.29  | 1.63  | 2.86   | 1.74  | 1.31  | 1.02  | 0.95  | 1.33  | 1.22  |

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 2008, BY WATER YEAR (WY)

|             | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    |
|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Mean</b> | 351    | 403    | 406    | 467    | 506    | 577    | 555    | 446    | 387    | 329    | 345    | 334    |
| <b>Max</b>  | 901    | 1,889  | 797    | 1,346  | 1,173  | 1,316  | 1,350  | 1,052  | 1,036  | 904    | 2,613  | 1,556  |
| <b>(WY)</b> | (1991) | (1978) | (1958) | (1995) | (1998) | (1979) | (1983) | (1973) | (1992) | (1941) | (1940) | (2004) |
| <b>Min</b>  | 111    | 124    | 146    | 140    | 188    | 222    | 236    | 220    | 158    | 111    | 93.7   | 99.5   |
| <b>(WY)</b> | (2001) | (1932) | (1934) | (1940) | (2001) | (1988) | (1986) | (2001) | (1988) | (1930) | (1925) | (1954) |

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## SUMMARY STATISTICS

|                                 | Calendar Year 2007 |        | Water Year 2008 |        | Water Years 1925 - 2008 |              |
|---------------------------------|--------------------|--------|-----------------|--------|-------------------------|--------------|
| <b>Annual total</b>             | 104,239            |        | 91,972          |        |                         |              |
| <b>Annual mean</b>              | 286                |        | 251             |        | 425                     |              |
| <b>Highest annual mean</b>      |                    |        |                 |        | 669                     | 1949         |
| <b>Lowest annual mean</b>       |                    |        |                 |        | 215                     | 2002         |
| <b>Highest daily mean</b>       | 2,150              | Jan 1  | 2,610           | Mar 5  | 27,700                  | Aug 14, 1940 |
| <b>Lowest daily mean</b>        | 103                | Oct 1  | 73              | Aug 24 | 65                      | Sep 9, 1925  |
| <b>Annual seven-day minimum</b> | 103                | Oct 12 | 80              | Aug 19 | 72                      | Aug 21, 1925 |
| <b>Maximum peak flow</b>        |                    |        | 3,780           | Mar 5  | <sup>a</sup> 52,800     | Aug 14, 1940 |
| <b>Maximum peak stage</b>       |                    |        | 6.26            | Mar 5  | 22.50                   | Aug 14, 1940 |
| <b>Instantaneous low flow</b>   |                    |        | 70              | Aug 25 | <sup>a</sup> 52         | Dec 24, 1943 |
| <b>Annual runoff (cfs)</b>      | 1.39               |        | 1.23            |        | 2.07                    |              |
| <b>Annual runoff (inches)</b>   | 18.92              |        | 16.69           |        | 28.14                   |              |
| <b>10 percent exceeds</b>       | 462                |        | 393             |        | 700                     |              |
| <b>50 percent exceeds</b>       | 228                |        | 207             |        | 342                     |              |
| <b>90 percent exceeds</b>       | 124                |        | 120             |        | 167                     |              |

<sup>a</sup>See Remarks.